Fig. 1

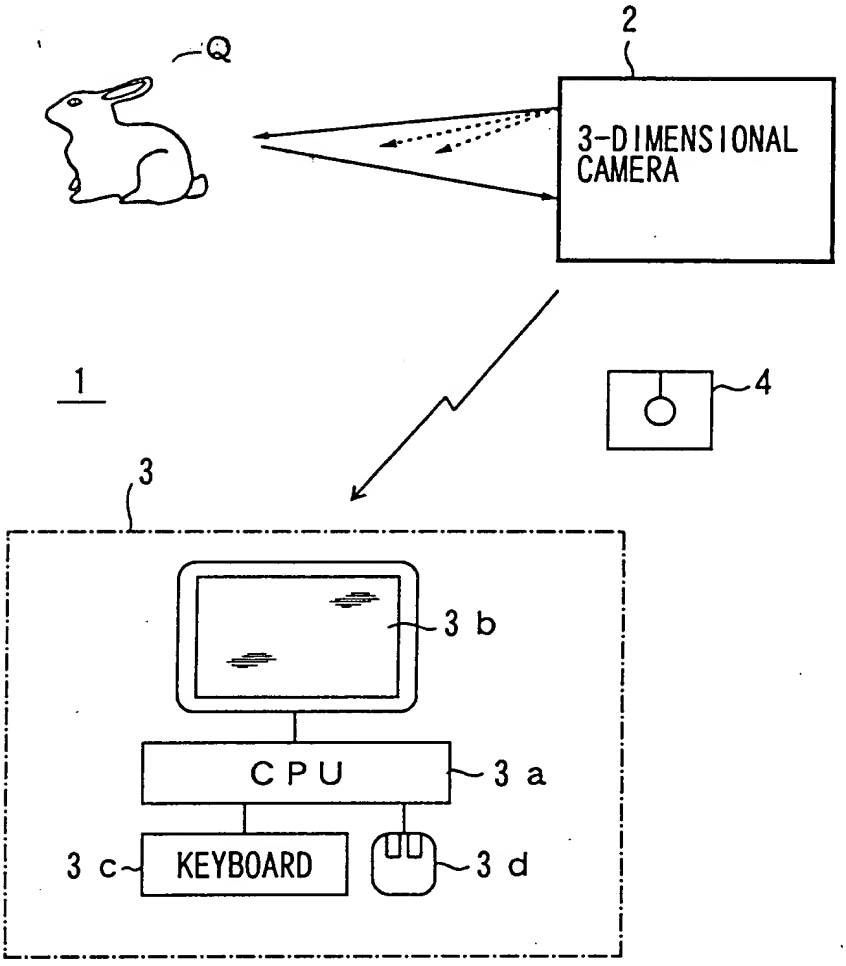


Fig. 2A

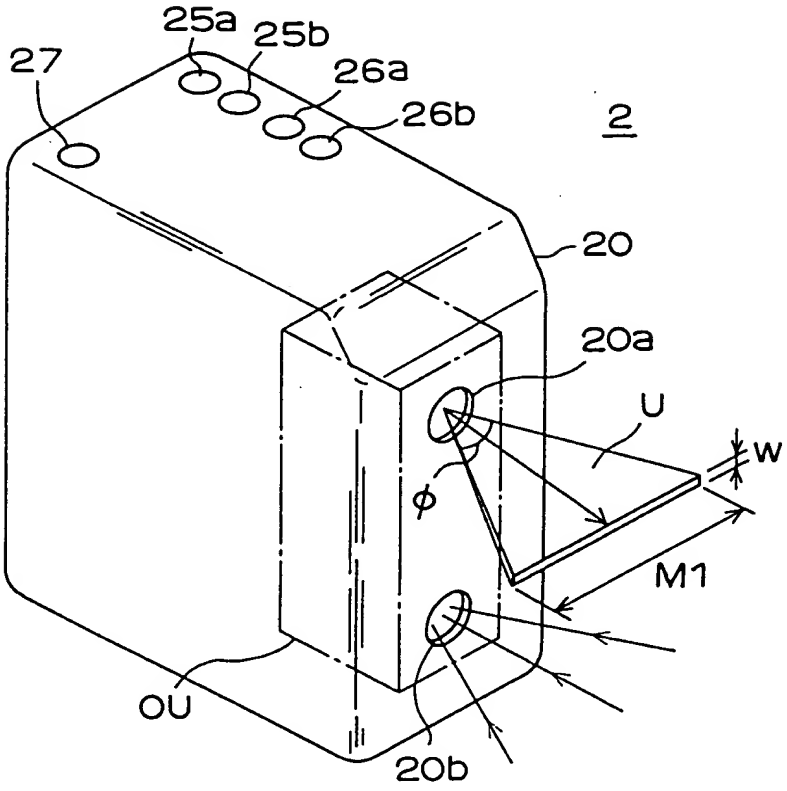


Fig. 2B

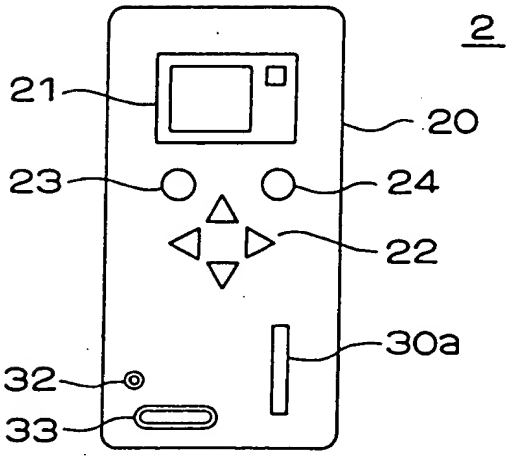


Fig. 3

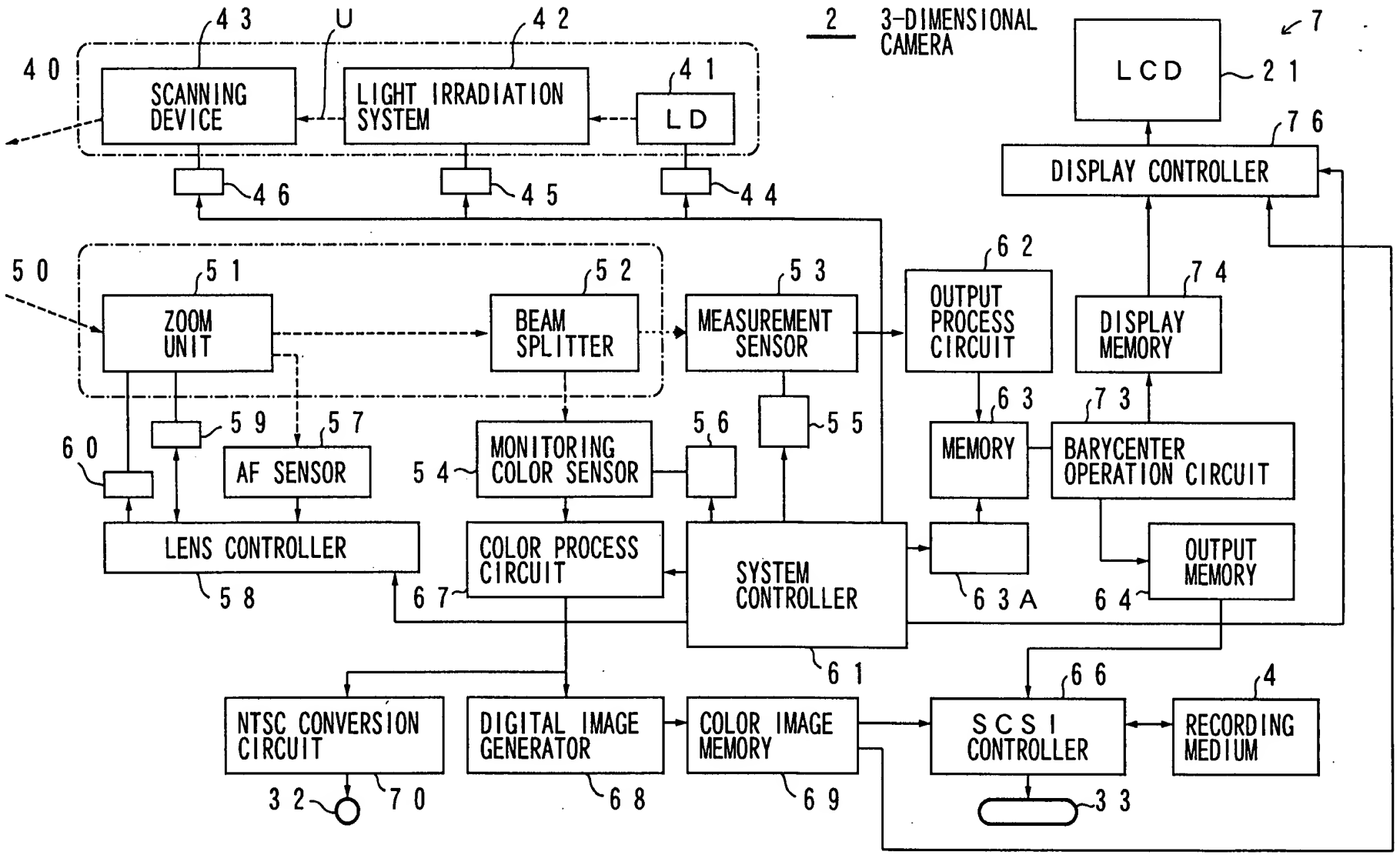

2 3-DIMENSIONAL CAMERA
40
43
U
42
41
SCANNING DEVICE
LIGHT IRRADIATION SYSTEM
LD
46
45
44
50
51
52
53
ZOOM UNIT
BEAM SPLITTER
MEASUREMENT SENSOR
59
57
56
55
60
AF SENSOR
54
MONITORING COLOR SENSOR
LENS CONTROLLER
58
COLOR PROCESS CIRCUIT
67
SYSTEM CONTROLLER
61
62
OUTPUT PROCESS CIRCUIT
63
MEMORY
63A
7
LCD
21
76
DISPLAY CONTROLLER
74
DISPLAY MEMORY
73
BARYCENTER OPERATION CIRCUIT
OUTPUT MEMORY
64
NTSC CONVERSION CIRCUIT
32
70
DIGITAL IMAGE GENERATOR
68
COLOR IMAGE MEMORY
69
66
SCSI CONTROLLER
33
4
RECORDING MEDIUM

Fig. 4A

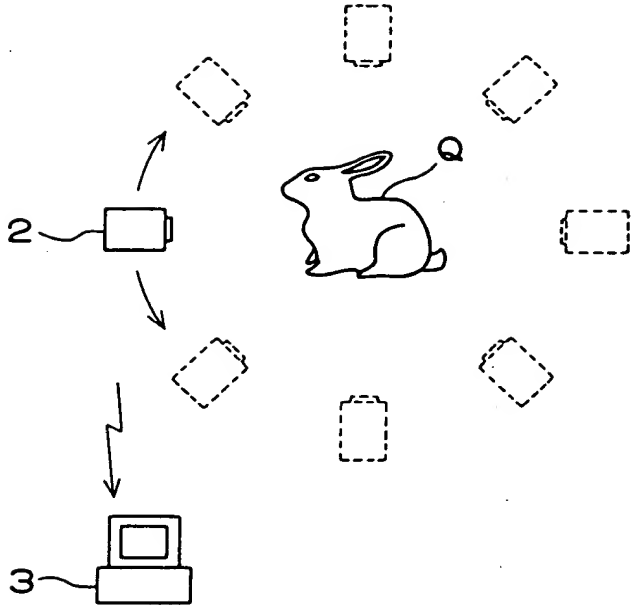


Fig. 4B

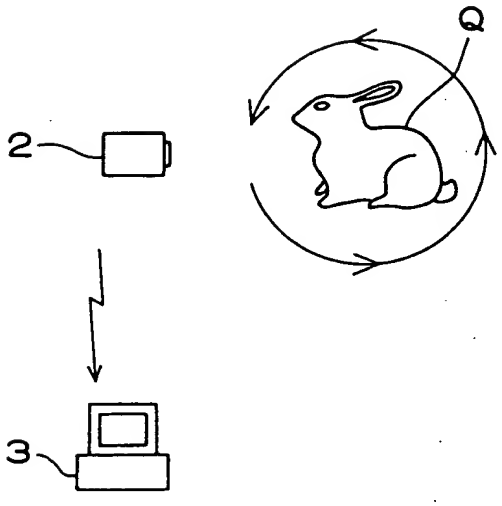


Fig. 5

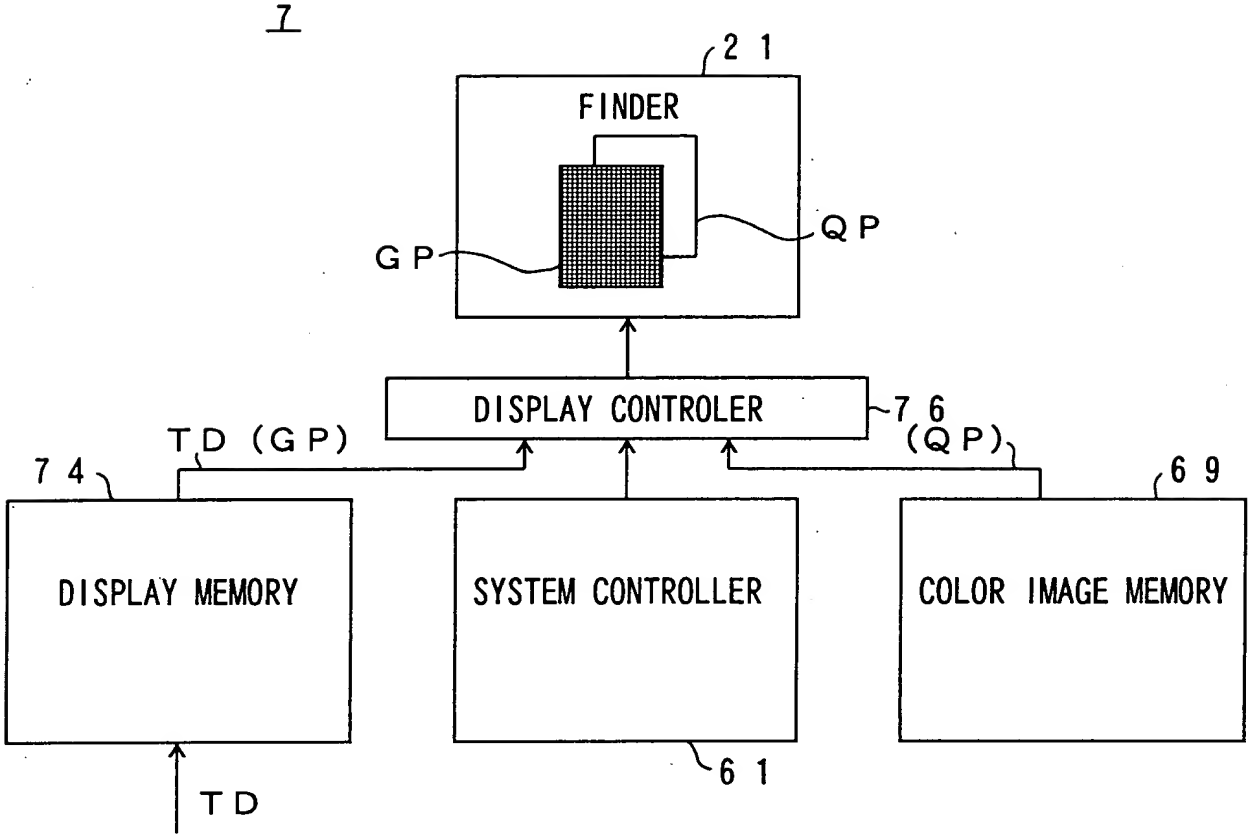

1
21
FINDER
GP
QP
DISPLAY CONTROLER
76
TD (GP)
(QP)
74
69
DISPLAY MEMORY
SYSTEM CONTROLLER
COLOR IMAGE MEMORY
61
TD

Fig. 6A

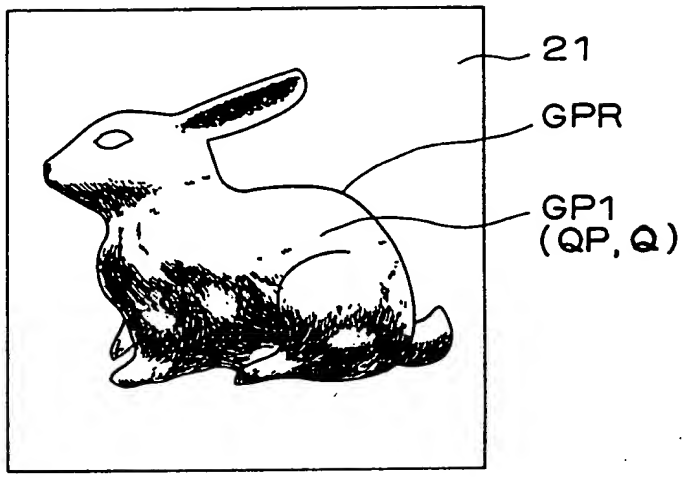


Fig. 6B

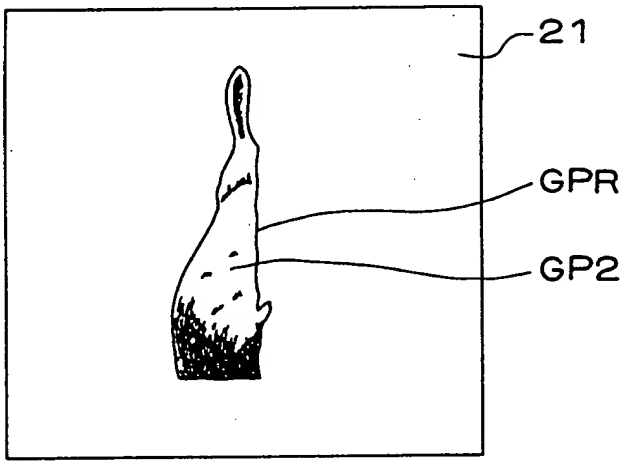


Fig. 6C

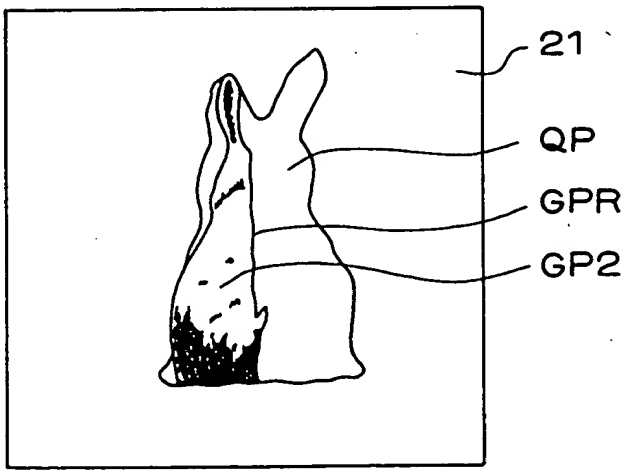


Fig. 7

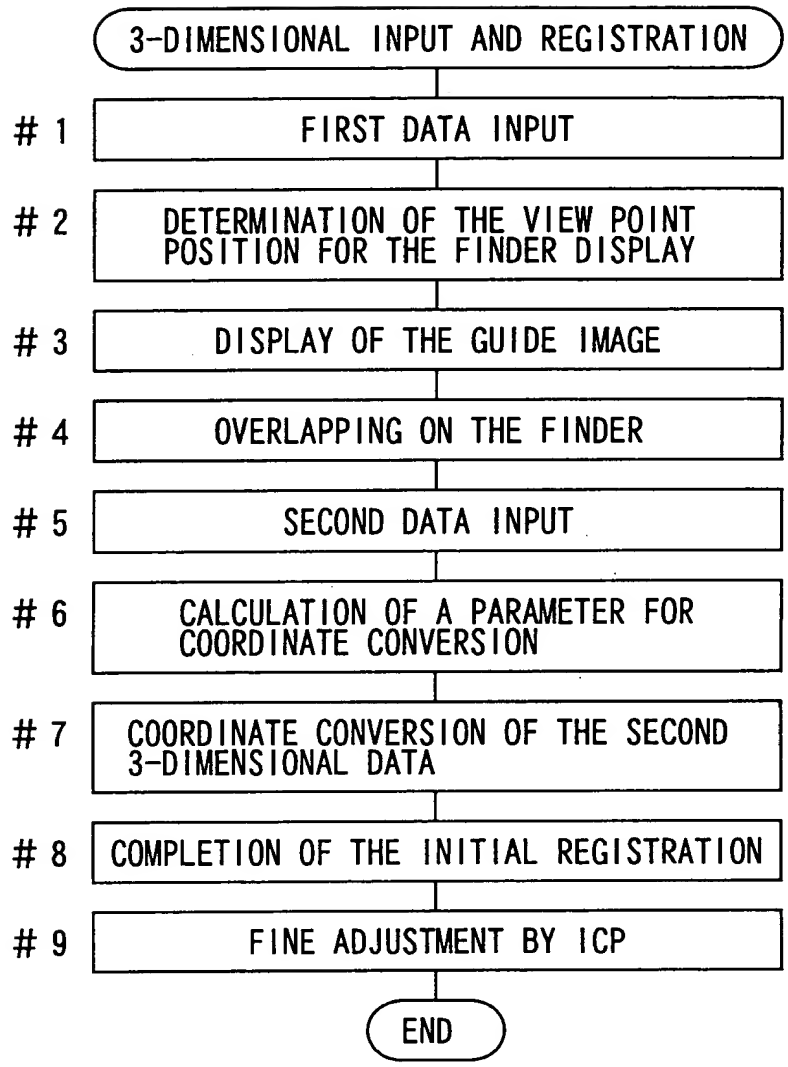

3-DIMENSIONAL INPUT AND REGISTRATION
1
FIRST DATA INPUT
2
DETERMINATION OF THE VIEW POINT POSITION FOR THE FINDER DISPLAY
3
DISPLAY OF THE GUIDE IMAGE
4
OVERLAPPING ON THE FINDER
5
SECOND DATA INPUT
6
CALCULATION OF A PARAMETER FOR COORDINATE CONVERSION
7
COORDINATE CONVERSION OF THE SECOND 3-DIMENSIONAL DATA
8
COMPLETION OF THE INITIAL REGISTRATION
9
FINE ADJUSTMENT BY ICP
END

Fig. 8

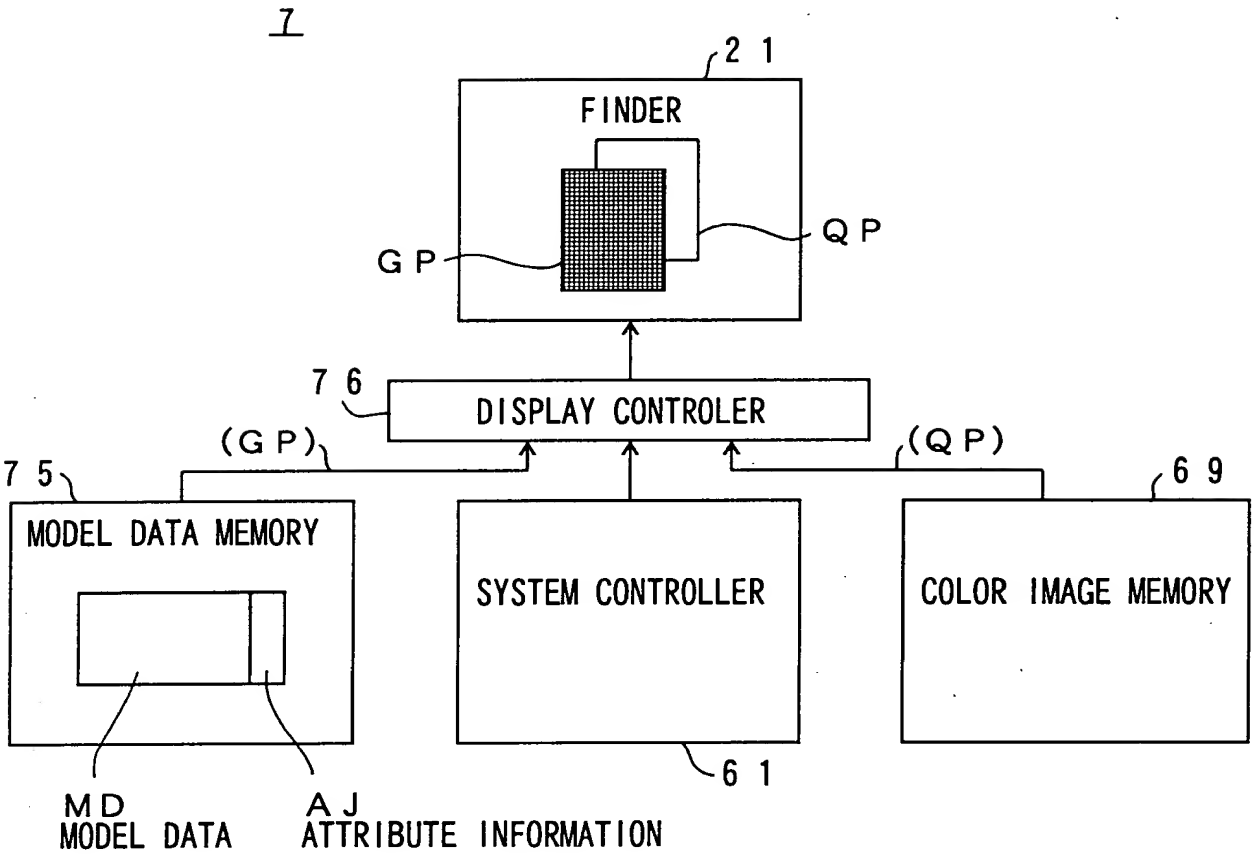

1
21
FINDER
GP
QP
76
DISPLAY CONTROLER
(GP)
(QP)
75
69
MODEL DATA MEMORY
SYSTEM CONTROLLER
COLOR IMAGE MEMORY
61
MD
MODEL DATA
AJ
ATTRIBUTE INFORMATION

Fig. 9A

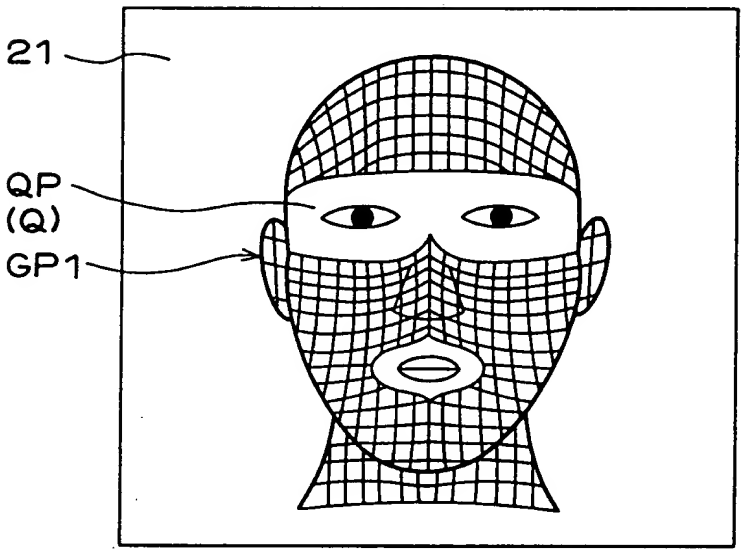


Fig. 9B

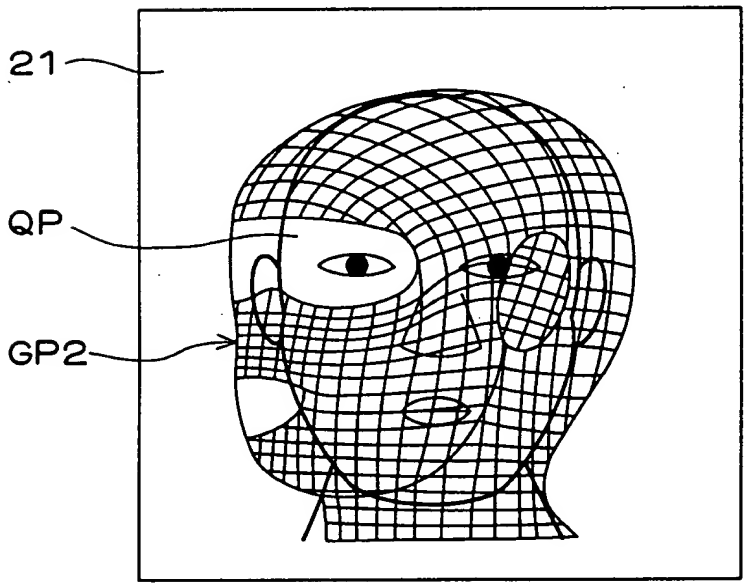
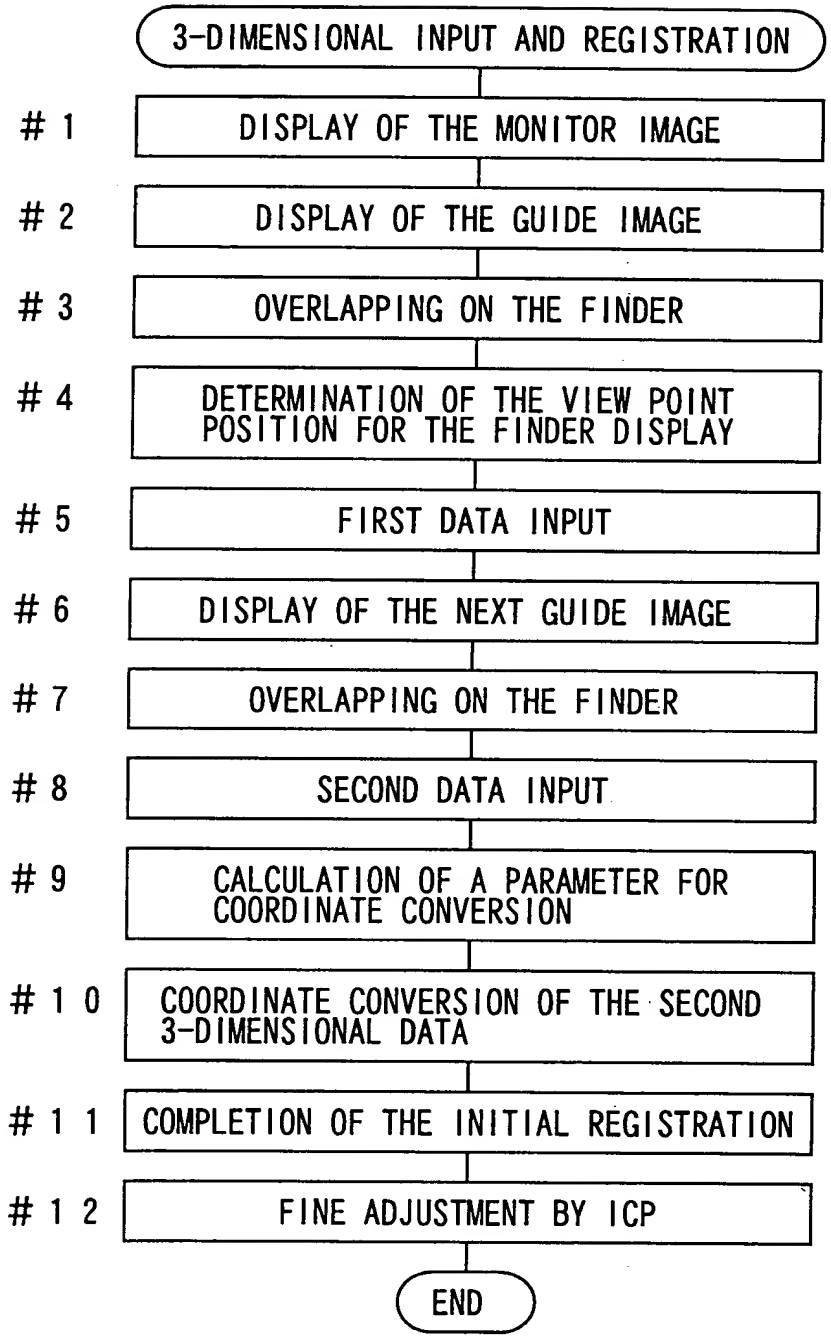


Fig. 10



0053659

Fig. 11

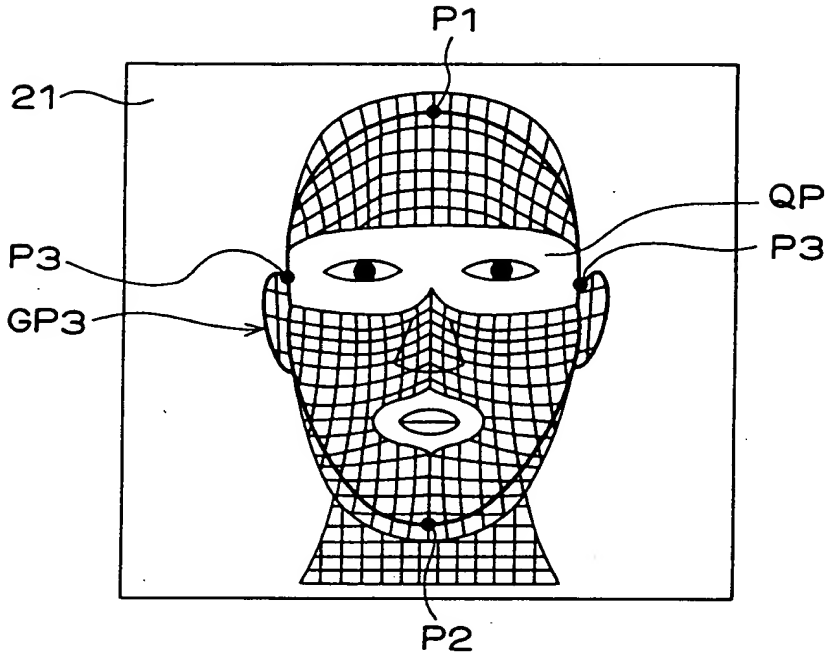
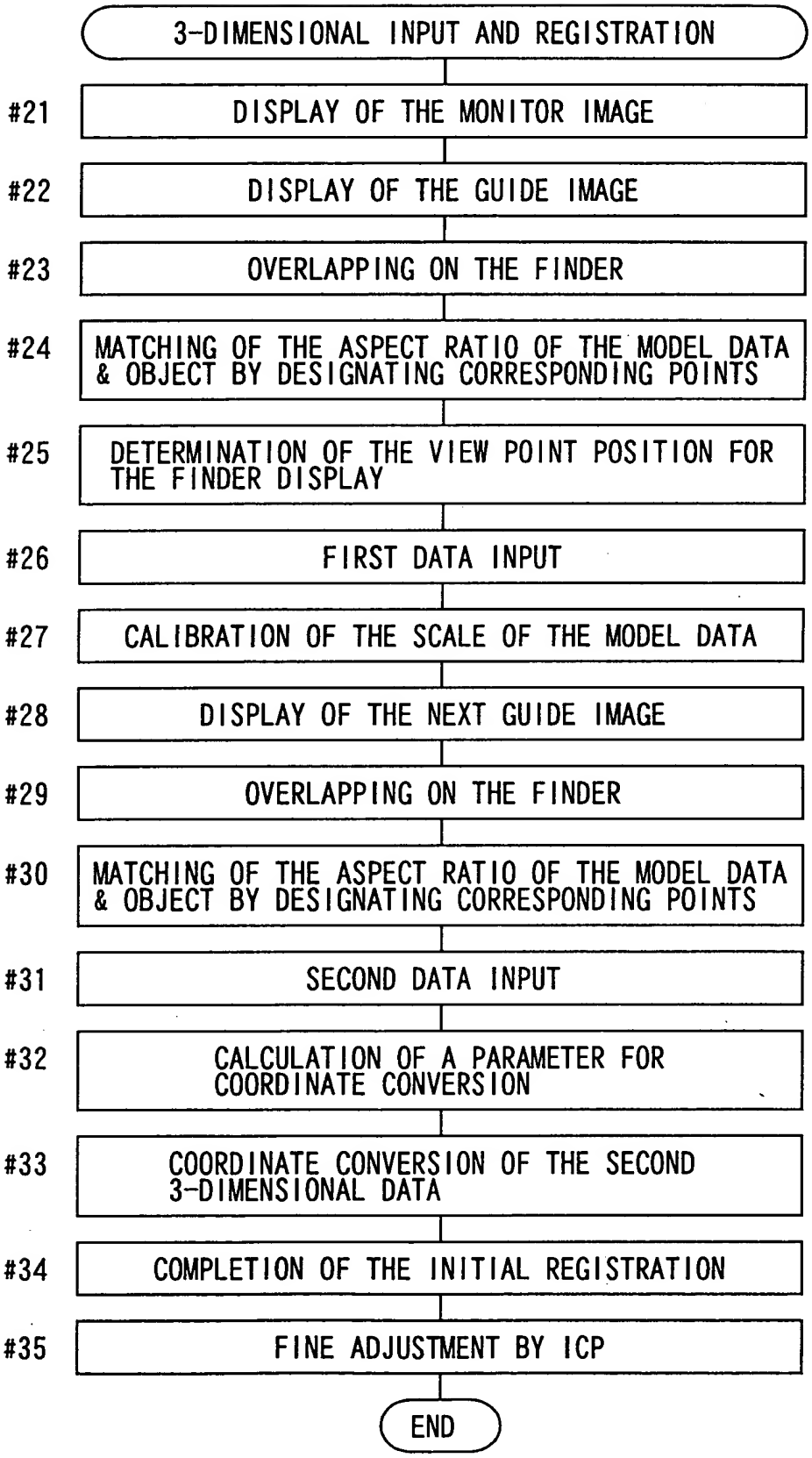


Fig. 12


3-DIMENSIONAL INPUT AND REGISTRATION
#21
DISPLAY OF THE MONITOR IMAGE
#22
DISPLAY OF THE GUIDE IMAGE
#23
OVERLAPPING ON THE FINDER
#24
MATCHING OF THE ASPECT RATIO OF THE MODEL DATA & OBJECT BY DESIGNATING CORRESPONDING POINTS
#25
DETERMINATION OF THE VIEW POINT POSITION FOR THE FINDER DISPLAY
#26
FIRST DATA INPUT
#27
CALIBRATION OF THE SCALE OF THE MODEL DATA
#28
DISPLAY OF THE NEXT GUIDE IMAGE
#29
OVERLAPPING ON THE FINDER
#30
MATCHING OF THE ASPECT RATIO OF THE MODEL DATA & OBJECT BY DESIGNATING CORRESPONDING POINTS
#31
SECOND DATA INPUT
#32
CALCULATION OF A PARAMETER FOR COORDINATE CONVERSION
#33
COORDINATE CONVERSION OF THE SECOND 3-DIMENSIONAL DATA
#34
COMPLETION OF THE INITIAL REGISTRATION
#35
FINE ADJUSTMENT BY ICP
END

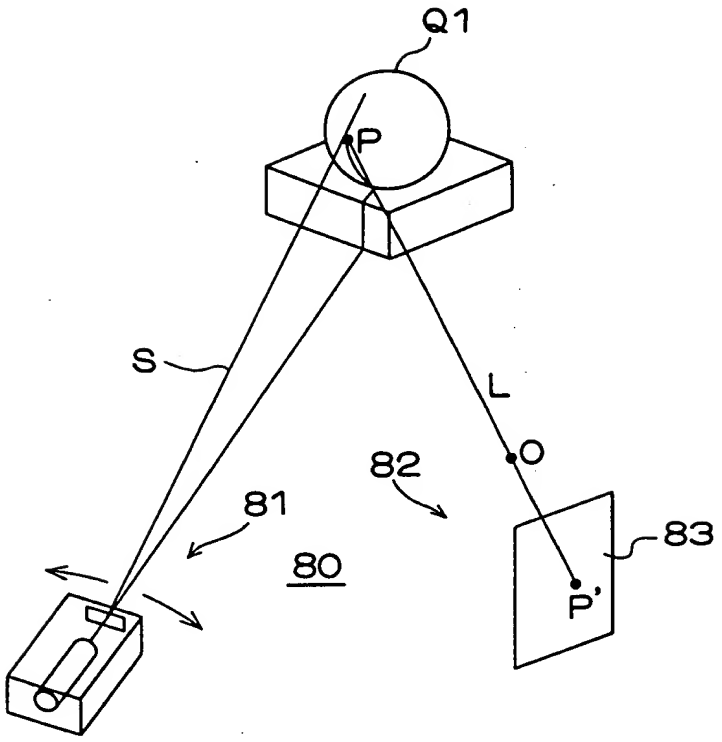



Fig. 13